

DETAILED ACTION

Claim Objections

Claim 8 is objected to because of the following informalities:

Claim 8 should be cancelled, as it is a duplicate of independent Claim 6, and
Claim 9 should then be rewritten as being dependent upon Claim 6.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent to Watanabe (US 6,428,206 B1).

With respect to Claim 1, Watanabe teaches a positioning device (100) that comprises:

- an arched arm (4); and,
- a base (6);
- wherein an x-ray detector (2) is supported on a holder (3) and an x-ray source (1) is supported on the arched arm (4), wherein said source is displaceable in the direction of the arched arm (arrow c, Figure 3); and,

- wherein the arched arm (4) is supported by the base (6) and is displaceable in the direction of the arch (arrow b, Figure 3; see Column 3, Lines 29-32).

With respect to Claim 2, Watanabe further teaches that:

- the arched arm (4) is supported in a second arched arm (5); and,
- the second arched arm (5) is supported in the base (6) and is displaceable in the direction of the arch of the second arched arm (arrow a, Figure 3; see Column 3, Lines 29-32).

With respect to Claim 3, Watanabe further teaches that the x-ray detector is supported in the arched arm (4) and moveable in the radial direction (h) relative to the arch of the arched arm (Figure 3).

With respect to Claim 4, Watanabe teaches a patient support device (Abstract) comprising:

- a positioning device (100) comprising:
 - an arched arm (4); and,
 - a base (6);
- wherein an x-ray detector (2) is supported on a holder (3) and an x-ray source (1) is supported on the arched arm (4) wherein said source is displaceable in the direction of the arched arm (arrow c, Figure 3); and,
- wherein the arched arm (4) is supported by the base (6) and is displaceable in the direction of the arch (arrow b, Figure 3; see Column 3, Lines 29-32).

With respect to Claim 10, Watanabe further teaches that the x-ray detector (2; via arm 3) and the x-ray source (1) are supported in the arched arm (4) and that the detector is moveable in a radial direction relative to the arch of the arched arm (Column 3, Lines 20-22 and 47-50).

With respect to Claims 5 and 11, Watanabe further teaches a patient support table (8), wherein the positioning device is located underneath the patient support table (Figure 2).

With respect to Claims 12 and 13, Watanabe further teaches that the x-ray source (1) is supported moveably in all directions and located separately from the positioning device (Column 3, Lines 20-24).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14 and 15, as they are best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe, as applied to Claims 6, 8, 13, and 12, respectively, above.

With respect to Claims 14, and 15, Watanabe teaches most of the elements of the claimed invention, including an x-ray imaging system (Abstract) wherein the x-ray source, digital x-ray detector, and positioning device move in a manner adapted to one

another so that said source, detector, and positioning device assume a predetermined orientation to one another (Column 3, Lines 5-53).

Watanabe does not specifically recite a control unit for said positioning.

Digital x-ray imaging systems are known to have control units in the form of computers for synchronizing system movements and for image reconstruction.

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ a control unit to perform the synchronized system movement of the apparatus of Watanabe, for faster and more accurate imaging of a patient.

Allowable Subject Matter

Claims 6 and 7 are allowed.

Claim 9 is objected to as being dependent upon a claim that is objected to but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and to overcome the objection as set forth above.

The following is a statement of reasons for the indication of allowable subject matter:

With respect to Claims 6, the prior art of record teaches many of the elements of the claimed invention, including an x-ray machine comprising: a patient-support device comprising: an arched arm; and a base, wherein an x-ray detector or an x-ray source is supported on the arched arm and displaceable in the direction of the arch of the arched arm; wherein the arched arm is supported by the base and is displaceable in the

direction of the arch of the arched arm; and the other of the x-ray detector or the x-ray source is supported movably in all directions in space.

However, prior art fails to teach or fairly suggest the machine wherein said other of the x-ray detector or the x-ray source is further located separately from the patient-support device, in the manner required by Claims 6 and 8.

Claim 7 would be allowable by virtue of its dependency.

Response to Arguments

Applicant's arguments with respect to claims 1-5, and 11-15 have been considered but are moot in view of the new ground(s) of rejection, said new grounds being directed to amended subject matter in the claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

U. S. Patent Documents to: de Putter (US 5,466,249) teaches a visible light source that is a displaceable arched arm and moveable within said arm in the direction of the arch, said arched arm also held in a second arched arm and displaceable in the direction of the second arched arm; Wang et al. (US 2003/0194051 A1) teaches a x-ray machine with a source displaceable in the direction of an arched arm support, but wherein the arched arm support is not also displaceable in the base.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANASTASIA MIDKIFF whose telephone number is (571)272-5053. The examiner can normally be reached on M-F 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. M./
Examiner, Art Unit 2882
3/27/09

/Edward J Glick/
Supervisory Patent Examiner, Art Unit 2882